First Looks

A round-up of all the latest product releases. Edited by Charles McLellan

PCs lose legacy features in search of simplicity

Given that elements of the PC architecture—serial and parallel ports, ISA expansion slots and floppy drives—have been around for 20 years, their demise is long overdue. This is one of the aims of the Easy PC and EasyNow initiatives, promoted by Intel, Microsoft and AMD. Other themes of the legacy-free PC are the promotion of USB as the only external expansion vehicle, compact designs, and faster setup and startup times.

The Easy PC initiative isn't set in stone, but PCs conforming to some of its important tenets are now coming to market. Here we look at three, from Advent, AST and Gateway.

Advent E-go

Pros Adventurous design; built-in modem, HomePNA and Ethernet connections.
Cons Moderate performance; noisy CD-ROM drive; very limited upgradeability; monitor sample suffered from poor focus.
Verdict The E-go is certainly different, but it needs more power to interest those who play games.

Price as reviewed (inc. VAT) £899

◄ With its futuristic design and lack of legacy ports, the E-go will certainly turn heads. The performance of this 450MHz AMD K6-2 PC, however, is disappointing.

THE E-GO FROM ADVENT, PC World's in-house brand, is the most futuristic-looking of the three legacy-free PCs reviewed here. It's a funnel-shaped silver-and-grey system, dominated by a CD-ROM drive that's mounted face-on, its bright purple door opening upwards and outwards. The silver theme is carried through to the bezel of the 17in. Sony monitor, the satellite speakers, the keyboard and the mouse, giving the whole system a (somewhat low-budget) sci-fi look.

Unlike the Celeron 810-based systems from AST and Gateway reviewed here, the E-go is based around a 450MHz AMD K6-2 processor (with 3DNow! instructions and external Level 2 cache), supported by 64MB of RAM in the system's single DIMM slot. The case isn't designed to be opened by the user, and memory upgrades must be carried out at PC World's in-store PC Clinics. The chipset is SiS's 530, which incorporates both graphics and audio. The AMD-designed motherboard conforms to the company's EasyNow specification (see the sidebar opposite), while the hard disk is a reasonably capacious 8.4GB Ultra-ATA/33 unit.

The front of the case carries two USB ports as well as the door to the noisy 24-speed Mitsumi CD-ROM drive. The power-on button is inconveniently located on top—we turned the machine on and off accidentally more than once during review. There are three more USB ports at the back, along with VGA and audio ports, and connectors for the internal 56Kbit/s soft modem and Home-PNA networking. There's also a 10/100Mbit/s Ethernet interface.

The 530 chipset claims 3D capabilities, but we were unable to test these as 3D WinBench 2000 requires 128MB of RAM. The E-go comes with 8MB of video RAM, which allows a resolution of 1,024 by 768 with a 72Hz refresh rate in 32-bit colour. Our unit was supplied with a handsome 17in. Sony HMD-A200 flat-screen Trinitron CRT monitor, although it suffered from poor focus. The HMD-A200 features a four-port USB hub to add to the E-go's five built-in ports, so you won't be short of USB expansion. Like the other two systems here, the display lacks a tilt-and-swivel base, and so it can't legally be used in a business environment. If you want to save space, a 15in. Samsung LCD monitor is available—at a price.

A pair of satellite speakers, a keyboard and a two-button mouse complete the hardware specification. The software bundle includes Windows 98 SE and Lotus's SmartSuite Millennium.

Advent's E-go is an adventurous PC design. Its lack of a floppy drive might be a step too far for some, but if you don't want to run the latest games, the E-go makes a refreshing change from the average beige box. CHARLES MCLELLAN

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AST Century City

Pros Well designed; easy to set up and use; value for money.
Cons Very limited upgradeability; moderate performance; unsuitable for running high-end applications or games.
Verdict The Century City is ideal for inexperienced users who want a PC that 'just works'.

Price as reviewed (inc. VAT) £899

THE AST CENTURY CITY PC manages to strike a good balance between style and practicality without being too gimmicky. It's based on Intel's 810 chipset, is powered by a 500MHz Celeron processor and is supported by 64MB of memory in one of the motherboard's two DIMM slots. RAM can be upgraded to a maximum of 512MB, but this requires

Products reviewed

Systems
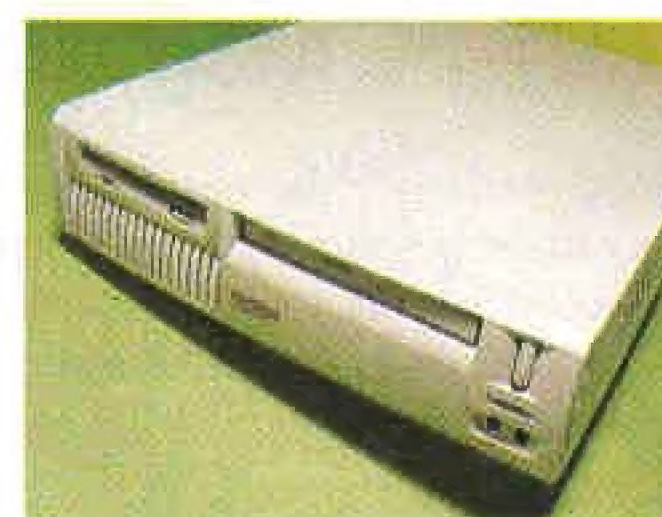
▲ We round up the first batch of Intel 820-based PCs on page 45.

The developing aims of the Easy PC specification

THE FIRST FRUITS OF THE EASY PC INITIATIVE are already with us: Windows 98 Second Edition offers the best USB support to date, and the three PCs reviewed here feature new case designs thanks to Intel's FlexATX specification and its AMD equivalents. But why do Microsoft and Intel want us to have legacy-free PCs?

The duo's last PR offensive—to expand the PC market—resulted in the 'Four Ss of Design' campaign in Spring 1999, the Ss in question being Speed, Security, Simplicity and Style. At the time, speed was covered by the prospect of

AMD joins in with EasyNow

INTEL AND MICROSOFT HAVE EASY PC, BUT AMD has its own initiative called EasyNow. Some might see it as a mere copy of Intel and Microsoft's plans, but at least the EasyNow platform supports the aims of the Easy PC initiative, which can only be good news for the consumers. The summary of AMD's plans is 'quick, easy, smart', which reads like the Easy PC initiative (see below). For more on AMD's plans go to www.amd.com/logos/easynow/enmessages.html.

EasyNow (AMD)	Easy PC (Intel/Microsoft)
Out of the box, on to the Internet	Less complexity, easy to set up
Plug and Play peripherals support	No legacy devices, adds USB
Good form and function	FlexATX motherboards

1GHz processors and the then-imminent arrival of the 820 chipset (we review and test four 820-based Pentium III PCs on page 45). Microsoft's Windows 2000 was to provide increased operating system performance and security. Style was to be provided by the new case designs made possible by the compact FlexATX motherboard standard. Finally, the aim for simplicity is the origin of the 'simple purchase, simple setup, simple operation, simple expansion and simply reliable' mantra that forms the heart of the Easy PC initiative.

The broad aims of Easy PC encompass targets like reduced complexity, the removal of 'difficult' interfaces (the ISA bus) and the adoption of simple interfaces like USB—the Instantly Available PC/OnNow specification. The chart right shows the full range of capabilities the two companies would like to see in an Easy PC.

Comparing the features of the three PCs reviewed here—the first we've seen that claim to meet any of these criteria—with those in this chart shows that this first batch of Easy PCs are about halfway to meeting the initiative's aims.

Although none of the systems reviewed here meets all the criteria of the Easy PC initiative, they're not meant to—yet. It's important to realise that the initiative is an on-going one. Intel and Microsoft, for example, are currently planning to continue the initiative for at least another few years, and while some of the goals

Utilities/Apps	Integrated functions, online support, one-button features, auto-maintenance
Peripherals	External USB expansion, no user slots
Form factor	FlexATX MB, slim chassis, low acoustics
OS/drivers	No-DOS, easy registration, CD recovery
BIOS	Silent boot, Instantly Available/OnNow
Core logic	Intel 8xx family with integrated graphics
CPU	Pentium III and Celeron processors

▲ Some of the Easy PC goals are being achieved now, but some will take time to implement. You can find out more at http://developer.intel.com/technology/easeofuse.

are being achieved now, others will take a while to settle down. One such moving goalpost was Microsoft's stated intent for all users—from the home to the corporate server—to share versions of a unified operating system (Windows 2000). The introduction of Windows Millennium (the intended replacement for Windows 98 in the home) and the price differences between Windows 98 and Windows 2000 Professional have almost guaranteed that there will still be at least two families of Microsoft operating system for some time to come. MARK CHILD

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the attention of an AST dealer—the beige and blue case isn't designed for user access.

The 810's integrated graphics offers a maximum resolution of 1,600 by 1,200 with 256 colours or 1,024 by 768 in 24-bit colour. The system can be supplied with 4MB of video cache memory, but this wasn't installed on our review unit. The resulting score of 110 in PC Labs' Business Graphics WinMark 99 test isn't impressive, and 3D
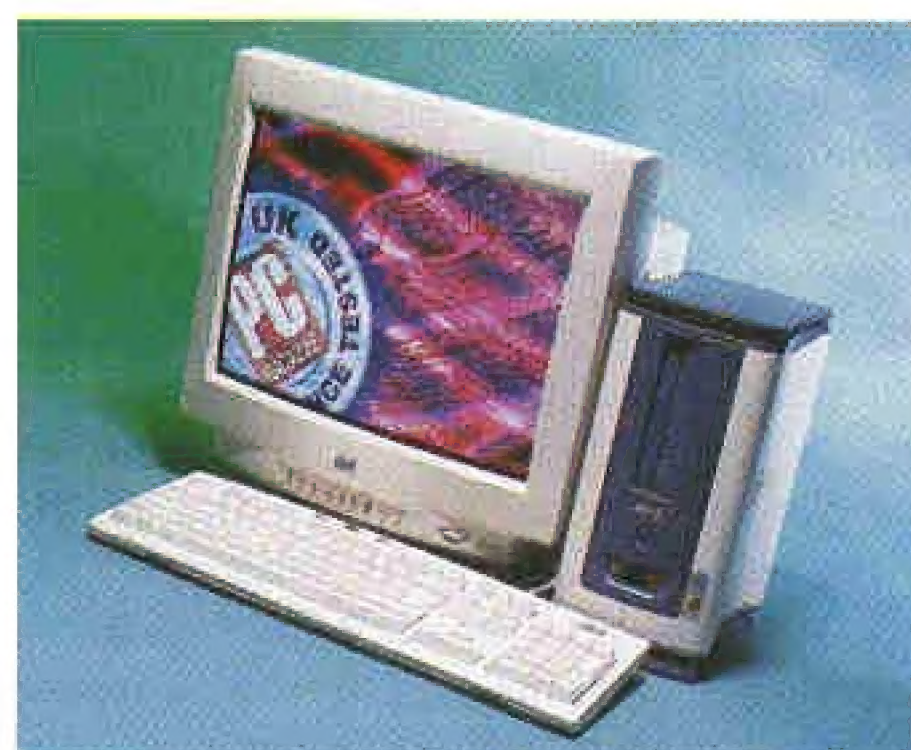
◀ AST's Century City is built around an Intel FlexATX motherboard housing a 500MHz Celeron processor and the integrated 810 chipset. As with the Advent E-go, the only removable media drive is a CD-ROM.

performance is poor. The graphics subsystem is fine for mainstream applications, though, and unless you're planning to play 3D games or use graphically demanding software, it shouldn't present any problems. The system is supplied with a 15in. CTX monitor that's easy to set up and adjust.

There's no floppy disk drive, so if you want removeable media you'll need to buy a USB drive, such as a Zip. Vertically mounted

PC Magazine Labs report Legacy-free PCs

Performance isn't the main focus of these legacy-free PCs, although their lack of decent 3D graphics acceleration and only 64MB of memory severely limits their appeal to gamers. However, they're certainly fast enough for accessing the Web and running mainstream software.

Overall Performance | Business Winstone 99

Score — better ➤

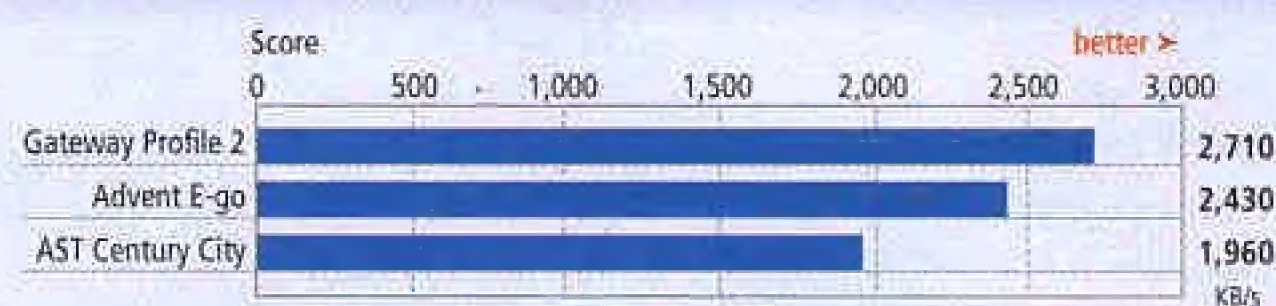| System	Score
Gateway Profile 2	19.5
AST Century City	16.6
Advent E-go	15.9
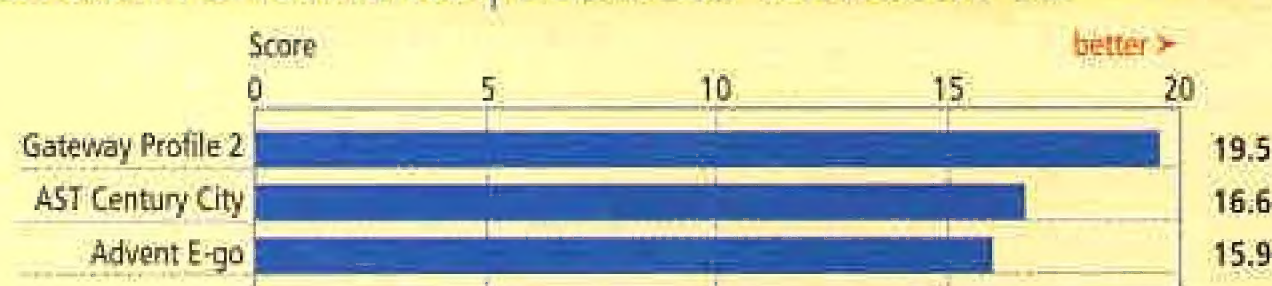
▲ **Business Winstone 99** Business Winstone scores of between 16 and 20 can't be described as fast, but these systems deliver adequate performance so long as you don't want to run high-end applications or 3D games.

Business Graphics WinMark 99

Score — better ➤

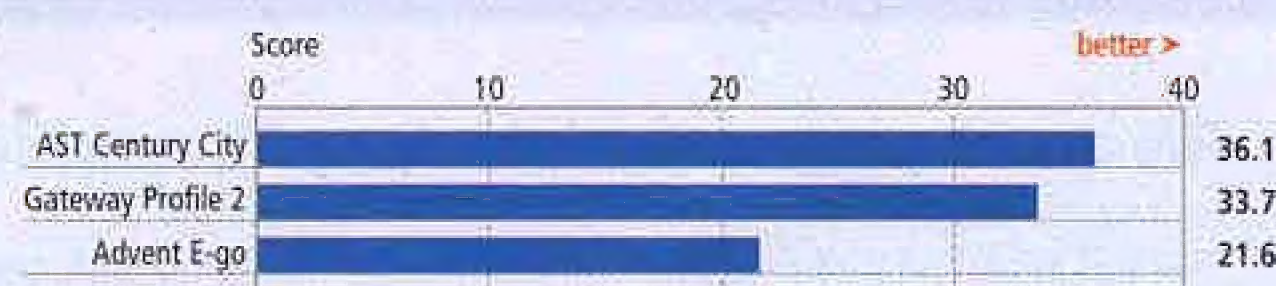| System	Score
Gateway Profile 2	138.0
AST Century City	110.0
Advent E-go	97.30

▲ **Business Graphics WinMark 99** All three systems feature integrated graphics, but the SiS 530 chipset in the Advent E-go trails the two Intel 810-based systems.

Business Disk WinMark 99

Score — better ➤

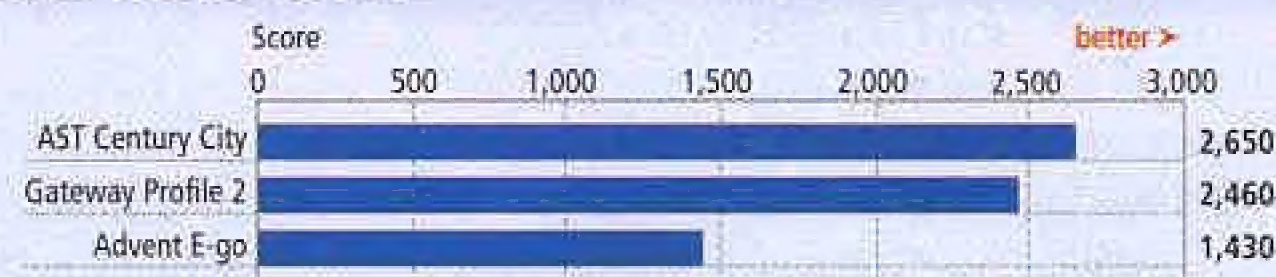| System	Score
Gateway Profile 2	2,710
Advent E-go	2,430
AST Century City	1,960

KB/s

▲ **Business Disk WinMark 99** The Gateway Profile 2's 20GB hard drive leads the disk benchmarks, with the 8.4GB unit in AST's Century City performing poorly, affecting its Winstone 99 score.

CPUmark 99

Score — better ➤

System	Score
AST Century City	36.1
Gateway Profile 2	33.7
Advent E-go	21.6

FPU WinMark 99

Score — better ➤

System	Score
AST Century City	2,650
Gateway Profile 2	2,460
Advent E-go	1,430

▲ **CPUmark 99 and FPU WinMark 99** The Advent's 450MHz AMD K6-2 brings up the rear, with AST's 500MHz Celeron in the lead. The poor floating-point performance of the K6-2 is also evident.

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on the front of the machine is a 24-speed Samsung SN-124 CD-ROM drive. The Samsung hard drive is an Ultra-ATA/66 unit with a capacity of 8.4GB.

There are no expansion slots or communication ports on the Century City, just four USB connectors, two of which are occupied by the mouse and keyboard. The only other connectors are for the sound system: speakers can be plugged into the rear, with microphone and headphones attaching at the front. The level of noise produced by this PC is admirably low, and although it's not completely silent, it shouldn't be too intrusive in the living room.

Although the AST Century City isn't an impressive performer, it's aimed at non-technical users who want Web access and the speed to run basic applications. AST's system fulfils this design brief and isn't overpriced.

LANCE CONCANNON

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Gateway Profile 2

Pros Clean design; reasonable performance; floppy disk drive.
Cons Integral LCD screen boosts the price.
Verdict A good system, but we'd expect more horsepower and some 3D acceleration for the price.

Price as reviewed (inc. VAT) £1,526

GATEWAY'S PROFILE 2 COMES as a sealed, integrated unit, dispensing with most of the baggage typical of a conventional desktop PC. You can't open the case and there aren't any expansion slots. Nor is there a parallel port, serial port, mouse or keyboard connector. The Profile 2 relies solely on USB to connect with peripherals: there are four ports on the system unit while the mouse is attached via a port on the keyboard.

Our review unit was based on a 466MHz Celeron processor—shipping PCs are expected to be 500MHz. The CPU is supported by 64MB of RAM, which can't be user-upgraded. The motherboard features Intel's 810 chipset, which is designed for use in low-cost systems, and integrated graphics.

The graphics subsystem handles a maximum resolution of 1,024 by 768 in 24-bit colour, enough for most 2D applications. However, if you want to play 3D games, this machine isn't for you. The Profile 2 has an integral 15in. LCD screen that delivers a good quality picture, features a physical brightness adjuster and can be tilted, but not swivelled.

The system's base houses a 1.44MB floppy drive, which sets it apart from the other legacy free

◄ The Profile II is based around a 466MHz Celeron and Intel's integrated 810 chipset. It features DVD-ROM and floppy drives, but the LCD display raises the price significantly.

systems here. As well as this, the Profile 2 has a Toshiba SD-C2302 DVD-ROM drive. Inside the system there's a 20GB IBM hard drive. The only ports at the back are for the internal 56Kbit/s modem and Intel 21145 Ethernet controller. There are two stereo speakers built into the base, with a headphone jack and an internal microphone mounted at the front for easy access.

The Profile 2 certainly looks special, but by attaching an LCD screen the price has been raised beyond what most will pay for a system that can't run 3D games successfully. LANCE CONCANNON

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